Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	**)**	
	)	
Rural Health Care Support Mechanism	**)**	WC Docket No. 02-60

COMMENTS OF THE BRAZOS VALLEY COUNCIL OF GOVERNMENTS

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SUMMARY

The Brazos Valley Council of Governments ("BVCOG") was established in 1966 to assist local governments in managing the Great Society of programs that era. BVCOG continues to play a similar role today, serving over 315,000 citizens in a sparsely populated area almost the size of the state of Connecticut. The area includes high rates of poverty, medically underserved populations, and a general lack of access to affordable broadband sufficient to meet the demands of health care. In order to address the urgent need for increased access to health care in rural communities, BVCOG has designed a fiber-ring network that would provide redundant, medical grade broadband to hospitals, clinics, and health education providers across the region. As such, BVCOG is a potential beneficiary of a reformed Rural Health Care support mechanism that includes the Commission's proposed Health Infrastructure Program. BVCOG urges the Commission to wait no longer to implement this important program.

Successful health infrastructure projects in the Rural Health Care Pilot Program have shown why a permanent Health Infrastructure Program is needed to bring affordable broadband access to rural health care providers while minimizing reliance on perpetual universal service fund subsidies. Such a program would be particularly beneficial in the Brazos Valley where high bandwidth connectivity linking a region spanned by multiple carrier service areas is urgently needed. Rural Health Care program rules should support the most cost-effective approach to meeting these needs – whether through subscribing to carrier managed services, or leasing or constructing facilities. The Pilot Program has also shown that excess capacity on health care provider-owned networks supports network sustainability while bringing affordable broadband to rural communities and supporting the Commission's goals for broadband deployment. BVCOG is well-positioned to quickly and cost-effectively implement the proposed network and thereby realize true universal access for rural health care providers across the region.

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The Brazos Valley Council of Governments ("BVCOG"), by its attorney, hereby submits these comments in response to the Federal Communications Commission's ("FCC" or "Commission") Notice of Proposed Rulemaking, FCC 10-125, released July 15, 2010 ("NPRM"), in the above captioned proceeding.[1] BVCOG has met with Commission staff on several occasions previously[2] and the purpose of these comments is to more fully address issues BVCOG discussed in these meetings and to respond to questions or concerns raised at different times by staff.

I. INTRODUCTION

BVCOG is a multi-purpose voluntary organization of, by and for local governments in the seven county Brazos Valley region of Texas. BVCOG serves over 315,000 citizens in an area almost the size of the state of Connecticut. Large areas of the Brazos Valley region are sparsely populated, have high rates of poverty, are medically underserved, and lack access to affordable broadband.[3] BVCOG has established Brazos 20/20 Vision, Inc., a non-profit corporation, with the goal of bringing redundant medical-grade broadband connectivity to health

[1] *Rural Health Care Support Mechanism*, WC Docket 02-60, Notice of Proposed Rulemaking, 25 FCC Rcd 9371 (2010) (*RHC NPRM*).

[2] *See* Letters from Jeffrey Mitchell, Counsel for Brazos Valley Council of Governments, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 02-60 (Jan. 17, 2011, May 2, 2011, Feb. 7, 2012, Mar. 21, 2012, respectively) (*BVCOG Ex Partes*).

[3] *See generally, id.*

care and health education facilities in the Brazos Valley region. Brazos 20/20 Vision, Inc. is a potential applicant for health infrastructure funding under the set of Rural Health Care ("RHC") program reforms proposed by the Commission in July 2010.[4]

BVCOG has commissioned the design of a broadband network that, at an estimated cost of about $15 million, would serve as many as seventy-six health care and health education providers across the Brazos Valley region of Texas.[5] The network would meet the urgent need in the region for secure, redundant, affordable, high speed broadband connectivity sufficient to support telemedicine and telehealth. Once built, this network could also provide telecommunications providers in the region access to wholesale capacity that would assist them in meeting their public interest obligations to provide broadband Internet access recently imposed by this Commission.[6] Finally, as with several successful RHC Pilot Program ("Pilot" or "Pilot Program") projects, the excess capacity on the Brazos 20/20 vision network – paid for without universal service fund ("USF") support – would help ensure the network is financially sustainable without the need for perpetual USF subsidies.[7]

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[4] *See RHC NPRM*, 25 FCC Rcd at 9377-9406, ¶¶ 11-89 (proposing $100 million per year "Health Infrastructure Program"). As either public entity or state organization, BVCOG qualifies as an HCP consortium leader pursuant to the Commission's proposed RHC rules. *See id.*, 25 FCC Rcd at 9446 (proposed 47 C.F.R. § 54.652(c) defining "HCP consortium leader" as "state organizations, public entities and non-profits that are not eligible health providers but that serve in an administrative capacity for eligible health care providers within a consortium."). Although some health care providers in the Brazos Valley region may participate in a wireless services pilot with current Pilot Program awardee, the Texas Health Information Network Collaborative ("TxHINC") there is no overlap between BVCOG's planned network and TxHINC's efforts.

[5] *See BVCOG March 2012 Ex Parte*, slide 10.

[6] *See Connect America Fund et al*., WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, FCC 11-161 at ¶¶ 160-163, 205-209 (2011) (*CAF Order*), *pets. for review pending, Direct Commc'ns Cedar Valley, LLC vs. FCC*, No. 11-9581 (10 Cir. filed Dec. 18, 2011) (and consolidated cases).

[7] *See, e.g.*, Rural Nebraska Healthcare Network Sustainability Plan, WC Docket No. 02-60, Rural Health Care Pilot Program Quarterly Data Report, 13 (filed Apr. 27, 2012) (*RNHN Quarterly Report*) (explaining how project is using excess capacity to achieve sustainability); Health Information Exchange of Montana ("HIEM") Further Comments, WC Docket 02-60, 10-12 (filed May 25, 2012) (*HIEM RHC NPRM Further Comments*) (utilizing similar approach for some parts of its network); *cf. RHC NPRM*, 25 FCC Rcd at 9455 (proposed 47 C.F.R. section 54.662 requiring ineligible entities to pay "an appropriate portion of the costs of the network" containing excess capacity).

With these comments, BVCOG will not recapitulate the record reflecting circumstances in the Brazos Valley or the uncontested and demonstrable cost savings and other benefits being realized by successful Pilot projects across the country. Rather, BVCOG intends to focus on two critical issues: (1) the Commission should promptly implement much needed and long-awaited reforms to the Rural Health Care program; (2) successful projects in the Pilot Program demonstrate that the proposed Health Infrastructure Fund in an important tool for deploying health broadband while ensuring the efficient use of precious USF dollars.

II. THE COMMISSION SHOULD ACT NOW TO IMPLEMENT REFORMS TO THE RURAL HEALTH CARE PROGRAM

Broadband connectivity is essential to reducing costs and increasing access to health care for rural populations. Indeed, with the recognition that huge health cost savings are to be had by addressing chronic medical conditions,[8] and with rural populations afflicted with chronic diseases at much higher rates than the general population,[9] it is clear that the true promise of telehealth will not be realized until rural providers and the hospitals to which they connect have high quality, high bandwidth broadband access. However, to achieve true parity of health care access with urban areas, the broadband connectivity available for rural health care should be superior to what is typically available (and affordable) for institutions of similar size in urban areas. As one commenter recently put it:

> If we are to deliver on the merits of Healthcare Reform everywhere in America, we must provide the most advanced "connectivity" to our rural areas. This is the original intent of the Universal Fund; not just supplying cost parity with urban markets to address the consumer digital divide. The need to fully integrate healthcare services and deploy integrated

[8] *See generally* DEPT. OF HEALTH AND HUMAN SERVICES (HHS), CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC), THE POWER OF PREVENTION CHRONIC DISEASE: THE PUBLIC HEALTH CHALLENGE OF THE 21ST CENTURY (2009), available at http://www.cdc.gov/chronicdisease/pdf/2009-Power-of-Prevention.pdf.

[9] *See* USDA, ECONOMIC RESEARCH SERVICE, HEALTH STATUS AND HEALTH CARE ACCESS OF FARM AND RURAL POPULATIONS (2009), available at http://www.ers.usda.gov/publications/eib57/ (summary available at http://www.ers.usda.gov/AmberWaves/June10/Findings/RuralPopulationsDisease.htm).

> medical solutions is the best way to address our massive disparities in American health equity.[10]

With this goal in mind, the Commission must not delay moving forward with long-term reforms to the RHC program. The Commission has now had almost two years to gather information since the *RHC NPRM* was released. Moreover, since December 2011 the RHC Program docket has been active with information submitted by program stakeholders, the RHC Program Administrator, and Wireline Competition Bureau ("WCB" or "Bureau") staff (providing summaries of *ex parte* communications with stakeholders) regarding the needs of program participants, as well as the accomplishments of the many Pilot Program projects. The record in this proceeding is now full of practical, credible, uncontested information showing how Pilot Program projects of all sizes and types are bringing the benefits of medical broadband to their states and regions – precisely as was anticipated by the Commission when it launched that ground-breaking program.[11] The Commission thus has more than enough information to reach experience-based, data-driven conclusions about what has worked in the Pilot Program and to move forward with RHC reform.

Notably, even if the Commission acts on RHC reform this summer, it is likely that program changes could not be administratively implemented until July 2013 (the beginning of the 2013 program funding year).[12] This factor only increases urgency because failure to enact

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[10] *See* JOHN F. ELLINGSON, REACHING RURAL HEALTH EQUITY: THE IMPORTANCE OF CONNECTIVITY TO THE POSSIBILITY OF HEALTHCARE REFORM IN RURAL AMERICA, 1 (2011) (attached to ProForma Healthcare Solutions, WC Docket 02-60, RHC Comments (filed Apr. 12, 2012)).

[11] *See Rural Health Care Support Mechanism*, WC Docket No. 02-60, Order, 22 FCC Rcd 20360, 20367, ¶ 15 (2007) (*2007 Pilot Program Selection Order*) ("The long-term goal of the Pilot Program is to provide the Commission with a more complete and practical understanding of how to ensure the best use of the available RHC support mechanism funds to support a broadband, nationwide health care network (expressly including rural areas) so that the Commission can reform the overall RHC support mechanism.").

[12] *See* Letter from Craig Davis, Vice President, Rural Health Care Division, Universal Service Administrative Company ("USAC"), to Sharon Gillett, Chief, WCB, FCC, WC Docket No. 02-60, at 8 (Mar. 14,

RHC reforms this summer could delay reforms until *July 2014*. Such a delay would be a further blow to the FCC's ability to meaningfully participate in the national health information technology ("IT") strategy being pursued by Department of Health and Human Services ("HHS") as envisioned by the *National Broadband Plan*.[13] Accordingly, BVCOG urges the Commission to act this summer to make these urgently needed and long-awaited reforms a reality.

III. THE PROPOSED HEALTH INFRASTRUCTURE PROGRAM IS A VITAL COMPONENT OF A REFORMED RURAL HEALTH CARE PROGRAM

Congress recognized the need for universal service support targeted specifically to health care when it enacted Section 254(h) in 1996.[14] With current national efforts to reduce health care costs while increasing access to care, that need is greater than ever today. Indeed, as the Commission's *National Broadband Plan* explained:

> [B]ecause of health care's role in the lives of consumers and its importance to the national economy, it is critical to retain a dedicated set

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2012) (noting that up to twelve months may be needed to make the administrative changes necessary to implement significant RHCP reforms) (*USAC Letter*).

[13] *See* Letter from Kathleen Sebelius, Secretary, HHS, to Julius Genachowski, Chairman, FCC, at 1 (Apr. 18, 2011) (*Sebelius Letter*) ("There is urgency to increase broadband access to health care providers. By statute, HHS meaningful use incentive payments will only be available for a limited time. Beginning in 2015, Medicare will pay health care providers less if they do not meaningfully use [EHRs]. Without targeted support over the next two years, this could have a great impact on rural America because of the large Medicare population that rural health care providers typically serve."); *FCC, Connecting America: The National Broadband Plan*, GN Docket No. 09-51, Chapter 10 (2010) (*National Broadband Plan*).

[14] *See Conference Report on S. 652, Telecommunications Act of 1996: Joint Explanatory Statement Of the Committee of Conference*, 142 Cong. Rec. H1078, 1112-1113 ("New subsection (h) of section 254 is intended to ensure that health care providers for rural areas . . . have affordable access to modern telecommunications services that will enable them to provide medical and educational services to all parts of the Nation. The ability of . . . rural health care providers to obtain access to advanced telecommunications services is critical to ensuring that these services are available on a universal basis. . . . This universal access will assure that no one is barred from benefiting from the power of the Information Age."). This prescient statement is equally important today. It is also notable that Congress did not express any intent to prioritize the provision of advanced services for schools and libraries ("E-rate") over rural health care facilities. Unfortunately, if one reviews the respective dockets, one might reasonably question whether the Commission has effectively prioritized the E-rate program over the RHC program.

> of programs within the [federal] Universal Service Fund (USF) to help spur broadband adoption by health care providers.[15]

Notwithstanding significant broadband infrastructure investment programs at the national level over the last few years, demand for affordable broadband that meets the specific needs of health care – especially in rural areas – continues to soar.[16] The Pilot Program has also effectively brought into focus the unique broadband needs of health care providers ("HCPs"). These special needs include higher bandwidth than typically needed for consumer or general commercial uses, service quality sufficient for real-time life saving medical applications, and physical redundancy.[17] With the country not even close to ubiquitous availability of redundant, affordable broadband access sufficient to serve health care, the Commission should act boldly and target Rural Health Care support wherever it is needed, using a variety of proven

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[15] *See National Broadband Plan* at 200-03 (outlining FCC goals and discussing relationship between Health IT and broadband).

[16] *See, e.g.*, Dr. Jacob Reider, M.D., Senior Policy Advisor, Office of the National Coordinator for Health Information Technology (ONC), HHS, WC Docket No. 02-60, *Notice of Ex Parte Communication*, 1 (Dec. 14, 2011) (summary submitted Jan. 6, 2012 by Linda Oliver, Attorney Advisor, Telecommunications Access Policy Division (TAPD), WCB) (*ONC Ex Parte*) (noting "bandwidth needs [for rural health providers] are significant and growing, increasing almost daily as new applications become available"); *USAC, Rural Health Care Pilot Program*, WC Docket No. 02-60, Health Care Provider Broadband Needs Assessment Summary, 8 (filed Apr. 12, 2012) (*USAC Needs Assessment*) (noting "rapid growth of expectations of broadband connectivity in the last few years" and growing demands from rural Critical Access Hospitals for bandwidths of 45 mbps); *id.* at 14 (noting increased bandwidth demand caused by tripling number of telemedicine units at several rural clinics in the past year). The *USAC Needs Assessment* included information from interviews with an array of subject matter experts ("SMEs") in telehealth who regularly participate in the legacy RHC program, the Pilot Program, or both. *See also National Broadband Plan* at 136-137; FCC, OBI TECHNICAL PAPER NO. 5, HEALTH CARE BROADBAND IN AMERICA: EARLY ANALYSIS AND A PATH FORWARD, 5 (2010) (*Health Broadband Technical Paper*) ("Over the next decade, physicians will need to exchange increasingly large files as new technologies such as 3D imaging become more prevalent."); *cf.* Chmn. Julius Genachowski, FCC, Bringing Broadband to Rural America: Update to Report on Rural Broadband Strategy, 10 (2011) (*2011 Rural Broadband Update*) (noting that Broadband Initiatives Program (BIP) and Broadband Technology Opportunities Program (BTOP) "will not fully resolve the need for robust and affordable broadband in rural areas"),*attached to Chairman Genachowski Releases Update to 2009 Rural Broadband Report*, GN Docket No. 11-16, Public Notice, 26 FCC Rcd 8680 (2011).

[17] *See, e.g., ONC Ex Parte* at 1 (noting "high degree of reliability, service quality, and redundancy needed for health care applications" as well as high cost of obtaining required levels of services quality); *see also* HEALTH BROADBAND TECHNICAL PAPER at 7 ("Quality-of-service metrics are . . . crucial to health [Information Technology] utilization. Latency, reliability, packet loss, and jitter can be even more important than bandwidth in supporting [healthcare] applications."); *cf. American Hospital Association (AHA) RHC NPRM Comments* at 4 (filed Sep. 8, 2010) (*AHA Comments*) ("[T]he existence of commercially available facilities in an area may not be determinative of their adequacy for health care purposes . . . . Even where some facilities do exist, they may be insufficient for health care purposes, including factors of reliability and quality of services from existing providers.").

mechanisms including direct investment in health infrastructure. As Chairman Genachowski's office noted last summer, the Commission's ongoing efforts would (and should):

> [E]mpower entrepreneurs to find cost-effective ways to extend broadband to high-cost areas. . . . Going forward, industry and policymakers at all levels must work collaboratively to support and facilitate investment in broadband networks capable of delivering high-quality broadband services throughout rural America.[18]

A reformed Rural Health Care program is not only a crucial missing piece to the Commission's current efforts at broadband promotion, but such a program if properly designed can and will flexibly and cost-effectively compliment the Commission's other USF reform efforts and help meet national broadband objectives.

A. Numerous Rural Health Care Pilot Program Projects Represent Successful Models for a Permanent Health Infrastructure Program

The *National Broadband Plan* specifically recommended creation of a Health Care Broadband Infrastructure Fund which the Commission sought to implement in 2010.[19] The record in this proceeding since 2010 provides further support for such a program. Specifically, data shows that direct infrastructure investment has been a significant part of the successes in the Pilot Program. For example, the RHC Administrator recently reported that eight of the fifty active Pilot projects requested and were approved for construction funding for HCP-owned networks representing a significant amount of funding approved so far in the Pilot Program.[20] Thus, despite reported problems with the Pilot Program, nearly one-sixth of Pilot projects are constructing HCP-owned infrastructure – and this number apparently excludes those projects that

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[18] *See 2011 Rural Broadband Update* at 19.

[19] *See* NATIONAL BROADBAND PLAN at 215-16.

[20] *See* Letter from Craig Davis, Vice President of Rural Health Care, USAC, to Sharon Gillett, Chief, WCB, FCC, WC Docket No. 02-60, at 2, 3-4 (dated May 4, 2012) (*USAC Pilot Data I*) (reporting 8 projects with over $35 million in approved funding for "network construction" out of over $217 million in approved funding for all projects).

entered into long term leases or IRUs for dark fiber, another type of HCP-owned infrastructure.[21] With the improvements to the application and administrative processes proposed by the Commission as part of the Health Infrastructure Program – not least the eligibility of limited administrative costs[22] – and USAC's increased experience administering these types of projects, there is reason to believe that such projects will be more manageable and efficient going forward. Thus, the experience with the Pilot Program supports implementation of a dedicated Health Infrastructure Program under the rules previously proposed by the Commission.

BVCOG is committed to bringing affordable medical broadband to the health care providers in its region in the most cost-effective manner. Because BVCOG will be required to pay for match funding, it will have strong incentives to select the most cost-effective solution proposed by potential bidders seeking to implement the proposed network – whether through managed services, long term dark fiber leases, construction, or a combination thereof.[23] BVCOG seeks RHC reforms that will permit it to select the best and most cost-effective option among many.

The Pilot Program concretely shows how health-care provider owned infrastructure can be more cost-effective for the USF than leasing connectivity as a service from existing providers.

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[21] *See RHC NPRM*, 25 FCC Rcd at 9395-96, ¶¶ 55-56 (dark fiber IRU's eligible for support in proposed Health Infrastructure Program); c*f. Schools and Libraries Universal Service Support Mechanism, A National Broadband Plan For Our Future*, CC Docket No. 02-6, GN Docket No. 09-51, Sixth Report and Order, FCC 10-175, ¶¶ 11-12 (*E-rate Sixth RO*) (noting benefits of allowing E-rate participants to lease dark fiber).

[22] *See RHC NPRM*, 25 FCC Rcd at 9386-87, ¶¶ 37-38 (85% of administrative expenses eligible for support up to $100,000 per year for three years).

[23] *Cf. National Broadband Plan* at 215 ("The [15%] match requirement aligns incentives and helps ensure that the health care provider values the broadband services being developed and makes financially prudent decisions regarding the project."); *Federal-State Joint Board on Universal Service*, Report and Order, 12 FCC Rcd 8776, ¶ 727 (1997) (rejecting additional requirements on HCPs because of adequate incentives to "not waste their own resources by paying" for services they do not need); *Rural Health Care Support Mechanism*, WC Docket No. 02-60, Report and Order, Order on Reconsideration, and Further Notice of Proposed Rulemaking, 18 FCC Rcd 24546, 24575-6, ¶ 58 (2003) (HCP responsibility for "significant portion of service costs" ensures health care providers will select most cost-effective services).

One commenter has noted a South Dakota-based Pilot network with $38,000 per HCP annual costs for leasing 1.5 Mbps to 45 Mbps connectivity on a recurring basis.[24] This compares to annualized per HCP costs for construction projects in the Pilot Program of $7500.[25] In neighboring Nebraska, one of the Pilot projects installing HCP-owned infrastructure will be providing exponentially greater capacity than in South Dakota – 2 Gigabit direct fiber connections to primary care hospitals and 1 Gigabit connections to clinics – at significantly less cost to the USF on an annualized basis (using the expected life of the asset).[26]

The Commission's proposed Health Infrastructure Program recognizes – as in the real-world examples above – that it can be more cost-effective in certain cases to the USF as well as for health care providers to make one-time investments, such as construction, IRUs, or long term leases, rather than to perpetually rely on USF subsidies to cover the recurring costs for services (which are often of inferior quality). Commenters in this proceeding have noted that one of the causes of out-of-control USF spending is this excessive reliance on perpetual subsidies.[27]

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[24] *See HIEM RHC NPRM Further Comments* at 6-9 (noting $36,000 per year average potential annual USF subsidy per HCP for 39 HCPs that are part of one Pilot project (HUBNet) that is leasing connectivity as a service).

[25] *See id*. (citing *USAC Pilot Data* at 4 and using 20 year asset life to annualize costs). As noted, these costs per HCP apparently exclude those from projects that leased dark fiber. *See HIEM RHC NPRM Further Comments* at 6.

[26] *See RNHN Quarterly Report* at 5 (Response 3). RNHN indicates that it expects to spend $19.7 million on its network of which 85% will be subsidized, or about $16.8 million. *See id.* at 13. With 40 sites on the network this equates to an average subsidy per site of about $420,000; dividing that amount by 20 years equates to an average annualized subsidy per HCP of about $21,000 – well below the average annual subsidy of $36,000 for HUBNet. The other pure construction project in the Pilot program is in Northeast Ohio which reports provisioning Gigabit connections at an annualized cost to the USF comparable to HUBNet. *See Northeast Ohio Regional Health Information Organization (NEO RHIO)*, WC Docket No. 02-60, Rural Health Care Pilot Program Quarterly Data Report, 37 (filed Apr. 30, 2012) (*NEO RHIO Quarterly Report*) (noting 1 Gbps circuits for each hospital). NEO RHIO's annualized average subsidy per HCP is almost $38,000. *See id*. at 22-23 ($14.2 million cost equates to USF subsidy of $12.1 million, divided by 16 sites, divided by 20 years). While these are not strictly apples-to-apples cost comparisons, the issue we are highlighting is expected *cost to the USF* over the life of the network.

[27] *See* HIEM Reply Comments, WC Docket 02-60, 6-7 (filed Mar. 7, 2011) (*HIEM PN Reply Comments*) (quotingTHE OMAHA PLAN: A WHITE PAPER TO THE STATE MEMBERS OF THE FEDERAL-STATE JOINT BOARD ON UNIVERSAL SERVICE, 7-8 (2011)):

> The problem associated with the Schools and Libraries program is that the states and their school systems leased facilities from the incumbent carriers that were needed to extend

BVCOG agrees with the Commission's proposal to make funding available for both HCP-owned infrastructure and subscriptions for recurring broadband services. This represented a flexible approach that will not only conserve scarce USF funds, but reflects the variety of approaches taken by successful Pilot projects. Indeed, the diverse needs and unique local conditions faced by health care providers and health care networks across the country has to be one of the principal lessons learned from the Pilot Program itself.

Finally, the Commission should disregard the claims by some that hospitals should not be in the business of designing or operating networks.[28] The record in this proceeding shows that many hospital systems clearly believe it is vitally important to own and manage their IT infrastructure and have been successful in doing just that.[29] Moreover, BVCOG is an example of an entity that successfully provisions and runs multiple public networks including health and safety related networks, and has done so for years. The Commission's proposed rules clearly contemplate BVCOG facilitating this network on behalf of health care providers in the region.[30] Accordingly, the Commission should not deny health care providers of the Brazos Valley the opportunity to pursue such a goal if they conclude it makes sense economically and will best support affordable access to health care by the populations they serve.

> the existing networks into the school systems rather than constructing their own facilities. Instead of a one-time national problem that we could resolve at some point in time, the Schools and Libraries Program has become an entitlement program that will last forever.

[28] *See, e.g., American Telemedicine Association (ATA) RHC NPRM Comments* at 4 (Sep. 8, 2010).

[29] *See, e.g., AHA Comments, HIEM RHC NPRM Comments* (filed Sep. 8, 2010); *Geisinger Health System RHC NPRM Comments* (filed Sep. 8, 2010); *Illinois Rural HealthNet RHC NPRM Comments* (filed Sep. 1, 2010), *Iowa Health System RHC NPRM Comments* (filed Sep. 8, 2010).

[30] *See RHC NPRM*, 25 FCC Rcd at 9446 (proposed 47 C.F.R. § 54.652(c) defining "HCP consortium leader"); *cf. USAC Letter* at 1 (noting "Strong Centralized Leadership" as an important quality of successful Pilot Projects).

B. Health Care Providers in the Brazos Valley of Texas Urgently Require Access to Broadband Sufficient for Health Care Use

BVCOG's planned network presents the only realistic alternative for hospitals, clinics and health education providers in our region to quickly obtain the robust, redundant broadband connectivity they urgently need. As other commenters have noted, there are particularly daunting challenges to bringing broadband for healthcare to rural areas of Texas. For example, the Texas Pilot Project TxHINC has explained:

> Texas is a state with unique attributes and contrasts. It is home to some of the largest cities in the nation yet it has more frontier counties than any other state; at 773 miles wide by 790 miles in length it is the second largest state, larger than the country of France. It is also the second most populace state with more than 25 million people (the state that is largest in area is 47th in total population with less than one million residents). It has more hospitals than any other state, including 77 critical access hospitals. Even though Texas has more than five hundred hospitals, it leads the nation with the number of counties without a hospital. These features make the [approximately $15 million in awarded] Pilot Program [funding] critical to improving access to care and impacting the health status for rural Texans.[31]

In addition, the FCC has reported that Texas has 4.3 million rural residents, 3.9 million of which live in rural census tracts, with 87.7% of those living in rural census blocks.[32] Only 11.8% of these rural residents are subscribing to broadband with download speeds of 3 Mbps, and only 2.6% are subscribing to download speeds of 6 Mbps.[33]

Regarding the availability of broadband sufficient for health care in rural areas of Texas, both BVCOG and TxHINC have noted the lack of fiber availability to rural hospitals in the

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[31] *See* Letter from George S. Conklin, TxHINC Project Coordinator and Senior Vice President and CIO, CHRISTUS Health, to Sharon Gillett, Chief, WCB, WC Docket No. 02-60, at 1-2 (Mar. 22, 2012) (*TxHINC Letter*). As noted, there is no expected overlap between TxHINC's planned network and that of Brazos 20/20 Vision. *See* n.4, above.

[32] *See* 2011 RURAL BROADBAND UPDATE at 24, 27, Appendices B and D.

[33] *See id.* at 27, Appendix D.

region.[34] A recent assessment of *consumer* broadband availability in Texas supports these assessments, noting for example that no households in Texas have access to 100 Mbps service and less than 50% of households – including urban – have access to broadband speeds above 25 and 50 Mbps.[35] This same assessment reports no consumer fiber availability in any of the seven counties in Brazos Valley region.[36] With Critical Access Hospitals in some states moving to standardize on 45 Mbps service,[37] this represents a grave shortfall with no near-term solution.

This public information is validated by BVCOG's experience managing multiple existing public networks. This includes a public safety network, a 9-1-1 network, a Workforce Development network, and an HIV network. In each case, BVCOG is forced to rely mostly on expensive T1 connections. For example, the 9-1-1 network has 1.5 Mbps connections in 8 cities across the region with annual costs per connection ranging from $5,556 to $11,763.[38] In

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[34] *See BVCOG Ex Partes*; Hank Fanberg, CHRISTUS Health, WC Docket No. 02-60, *Notice of Ex Parte Communication* (Dec. 12, 2011) (*Fanberg Comments*) (summary submitted Jan. 17, 2012 by Linda Oliver, Attorney Advisor, TAPD, WCB). As the Bureau noted:

> Mr. Fanberg described his experience with the broadband needs of rural hospitals and health care providers in the state of Texas. Mr. Fanberg believes that Texas has the largest number of rural hospitals in the country. In many areas there is no fiber cable available. He said that most rural hospitals are using a T-1 line; some bundle two T-1 s, while a rare few might have DS-3 connections. Even when broadband connections are available in a rural community, they may not be affordable, because those connections are often much more expensive in rural areas. He said that the higher rural prices are due in part to the greater distance of the customer's premises from a service provider's network, and in part due to the relatively small number of potential customers that can be served in rural areas, which means costs must be spread over fewer customers. Also, in many cases there is only one potential broadband provider in rural communities, and thus no competitive price pressure.

[35] *See* CONNECTED TEXAS, THE BROADBAND LANDSCAPE IN THE STATE OF TEXAS: ASSESSMENT AT A STATE, REGIONAL & LOCAL LEVEL, AND RECOMMENDATIONS FOR BROADBAND EXPANSION, 4 (Mar. 2011), available at http://www.connectedtx.org/sites/default/files/connected-nation/Texas/ctx_planning_report_final_web.pdf.

[36] *See id.* at 37-48, Table 12. The seven counties are Brazos, Burleson, Grimes, Leon, Madison, Robertson, and Washington. Connected Texas has performed a limited survey of broadband speeds by Community Anchor Institutions ("CAIs") in Texas; however, with only 10.7% of CAIs in the sample, the results have to be treated with caution. *See id* at 70 (noting 45.2% of CAIs reporting speeds between 1.5 Mbps and 3 Mbps).

[37] *See* USAC NEEDS ASSESSMENT at 8 (noting "rapid growth of expectations of broadband connectivity in the last few years" and growing demands from rural Critical Access Hospitals for bandwidths of 45 mbps).

[38] These networks and costs are detailed in Exhibit 1.

addition, as we have previously discussed with FCC staff, because these connections often span multiple carrier service areas, it can take months to provision particular network segments and assigning responsibility for service quality problems is difficult. Therefore, while cost is part of the problem – the real issue in the Brazos region is lack of access to high speed, high quality connections, at any cost.

Certainly the Commission's implementation of the Connect America Fund is a new development since the Health Infrastructure Fund was first proposed. However, as Brazos has noted elsewhere, CAF is focused on increased deployment of consumer broadband Internet access, not dedicated broadband with service quality guarantees.[39] Moreover, CAF imposed only CAI reporting requirements on carriers receiving CAF funds, not an obligation to provide affordable service, and certainly no obligation to provision a network spanning multiple carrier service areas.[40]

The most immediate solution for lack of availability in the Brazos Valley of broadband sufficient to meet the needs of health care is RHC health infrastructure funding and the RHC competitive bidding process. Through the proposed Health Infrastructure Program, BVCOG could post a request for proposals with its network design and service level requirements and existing carriers, fiber builders, or other providers can compete to meet those requirements. It is this competitive process that will determine whether competitively priced network services would be more cost effective, or whether a network should be constructed and/or leased from existing providers. But what is critical is that the network design be dictated by the needs of

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[39] *See* Brazos Valley Council of Governments et al., *CAF Order Comments* at 6-9 (filed May 23, 2011).

[40] *See CAF Order* at ¶ 102. In addition, the Texas USF has long been in place but has done little to address the broadband needs of health care providers in the Brazos region. TxTHINC has noted that Texas law provides cost-plus access to telecommunications for public entities such as schools and health care providers, however this law covers only connections within a "local serving area" and so cannot facilitate networks that span different local service areas, as the Brazos 20/20 network would do. *See* TEX UT. CODE ANN. § 58.251(b); *TxHINC Letter* at 2.

health care providers in the region, not by the service boundaries of different carriers serving the region. Indeed, notwithstanding the unique challenges being faced in the Brazos Valley, another lesson of the Pilot Program is the importance and value of allowing health care providers to determine the scope and design attributes of the networks in which they participate.[41]

C. Price Competition Should Determine Whether Health Infrastructure Investment is Needed

The purpose of the Commission's competitive bidding requirement is to ensure the universal service funds are "used wisely and efficiently" by ensuring "rural health care providers are aware of cost effective [service] alternatives."[42] Indeed, competitive bidding remains the central protection against waste in the RHC program. Unfortunately, in many rural areas – including many areas in the Brazos Valley – there is little or no competition.[43] In such situations, the sole provider can offer take-it-or-leave-it pricing, potentially resulting in excessive costs to the USF.[44] Indeed, recent information provided by the RHC administrator indicates that lack of competitive bidding in the legacy RHC program is pervasive – with USAC reporting that over 84% of RHC request for service in the last four years produced no bids whatsoever. In such

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[41] *See* Pennsylvania Mountains Healthcare Alliance, Palmetto State Providers Network, North Carolina Telehealth Network, Colorado Telehealth Network, WC Docket No. 02-60, *Notice of Ex Parte Communication*, 3 (Feb. 23, 2012) (summary submitted Mar. 13, 2012 by Christianna Lewis Barnhart, Attorney Advisor, TAPD, WCB) ("[A]ll agreed that it was important that the projects had the ability to control what the network looked like when completed.").

[42] *See* Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, ¶¶ 686-89 (1997) ("Universal Service First Report and Order").

[43] *See e.g.*, Connected Texas Density of Providers map for Leon County at http://www.connectedtx.org/connectednationftp/texas/Connected_Texas_Mapping/County_Maps/County_ProviderDensity/TX_ProviderDensity_Leon.pdf; *Fanberg Comments* at 1 (noting that in Texas "in many cases there is only one potential broadband provider in rural communities, and thus no competitive price pressure."); *see also* Letter from Craig Davis, Vice President of Rural Health Care, USAC, to Sharon Gillett, Chief, WCB, FCC, WC Docket No. 02-60, 1-2 (dated May 30, 2012) (*USAC Pilot Data II*) (noting well over 80% of applications for support in the "Primary" or legacy RHC program receive no competitive bids in response to requests for service).

[44] Under the legacy RHC program, which provides support equal to the difference between urban and rural rates, excessive pricing has little impact on health care providers because, regardless of the rural rate charged by their provider, they pay only the "urban rate" for a comparable service. *See* 47 C.F.R. § 54.609(a)(2).

cases, HCPs are presumably entering into what are effectively no-bid contracts with local incumbent providers.

The proposed Health Infrastructure Program is the obvious way to bring some degree of competition into rural areas. Indeed, the mere alternative for HCPs (or consortia of HCPs) to construct or lease dark fiber will, at a minimum, establish a price ceiling for what an incumbent provider can offer for a services-only contract.[45] This will allow HCPs to compare the cost-effectiveness of a services-only option with a build-maintain option with a leased-managed services option. Because of the match funding and network sustainability requirements under the proposed infrastructure program, the health care network will have powerful incentives to select the most cost-effective option over the expected life of the network.[46]

As noted, the Pilot Program certainly has shown that each region and project has unique characteristics and faces unique challenges. As a result, RHC reform demands a flexible approach in order to ensure maximum benefit in a variety of circumstances. Brazos urges the Commission to quickly adopt the RHC reforms proposed in 2010, as they offered the flexibility needed to meet the great variety of circumstances of different regions across the country, including the Brazos Valley.

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[45] *Cf. E-rate Sixth RO*, ¶ 11 (allowing schools and libraries the ability to lease dark fiber "broaden[ens] the scope of potential suppliers of broadband [and] increases competitive options, which in turn enhances choice and reduces cost.").

[46] *See National Broadband Plan* at 215; *cf. AHA Comments* at 4 ("[T]he existence of commercially available facilities in an area may not be determinative of their adequacy for health care purposes . . . . Health care providers choosing to undertake the construction of facilities under the Health Infrastructure Program will have given great weight to any existing broadband alternatives available."); *HIEM RHC NPRM Reply Comments* at 6-7 (filed Sep. 23, 2010) ("If a program vendor has fiber deployed in an area where a program participant needs capacity, then the vendor should have no trouble submitting a bid that is lower than the cost of building new facilities. If a carrier can't do that, when its existing plant was built with the help of subsidies, then something is amiss.").

D. Excess Capacity Supports Network Sustainability and Promotes Increased Broadband Availability in Rural Communities

As one RHC commenter explained previously: "Of all the actions the Commission is currently considering, the [proposed Health Infrastructure Program] has the greatest potential to quickly accelerate the deployment of broadband capability by removing barriers to infrastructure investment."[47] Indeed, it is this promise of relatively immediate and direct impact on broadband availability that keeps BVCOG participating this proceeding. BVCOG recognizes, however, that network sustainability is the key to realizing the full value of one-time infrastructure investments because it is only through sustainability that networks avoid dependency on continuing subsidies. One of the ways sustainability was addressed in both the Pilot Program and the proposed Health Infrastructure program was to allow projects to install – at their own expense – additional fibers on their networks ("excess capacity") and to lease this excess capacity to third-parties provided that any proceeds were used solely to sustain the network.[48] Not only does such excess capacity not impose any costs on the USF, in many cases it may reduce costs.[49] As noted, at least two Pilot projects are achieving network sustainability using this method.

Beyond sustainability, excess capacity in practice is producing partnerships with local service providers which in turn result in the increased availability of affordable commercial

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[47] *See HIEM RHC NPRM Comments* at 4 (filed Sep. 8, 2010).

[48] *See* RHCPP Excess Bandwidth and Excess Capacity Scenarios, #3 and #8 (Mar. 17, 2009). Projects were also permitted to use excess capacity proceeds to fund the 15% match requirement. *See, e.g., RNHN Quarterly Report* at 13. While some commenters objected that the sale of excess capacity violates the Telecommunications Act, the Commission has correctly explained why this is not so. *See RHC NPRM*, 25 FCC Rcd at 9403-04, ¶ 82 (noting "the use of such additional capacity by the community would not violate the restrictions against sale, resale or other transfer contained in section 254(h)(3) of the [the Communications Act of 1934, as amended by the Telecommunications Act of 1996] because, in such instances, health care providers would retain ownership of the additional capacity, and payments to the network for the use of such additional capacity would be retained to sustain the network.").

[49] One commenter observed that the "incremental" cost for excess capacity may actually be negative where putting in less than the standard amount of bundled fiber actually costs more than installing the standard bundle (which may exceed what is needed for the health care network). *See HIEM RHC NPRM Comments* at 7.

broadband access to local rural communities – all while conserving USF funds by increasing competition and avoiding perpetual subsidies.[50] Regarding whether the Commission should limit the amount of excess capacity fiber that could be installed,[51] BVCOG notes that the ratio of excess fiber in the Nebraska Pilot Project is between 1:2 and 3:4, with 24-36 fibers dedicated to the health care network, and 48 fibers purchased without USF funds and available for private use. BVCOG believes that a 1:2 ratio protects the USF by ensuring there is a legitimate need for the health care network and that it is not simply a pretext to fund a private network through other means. In addition, because proceeds from the lease of excess capacity can be used only to sustain the public network, there is little incentive to install more capacity than there is a current market for.[52]

IV. CONCLUSION

BVCOG urges the Commission to complete the Rural Health Care program rulemaking begun almost two years ago and to implement the proposed Health Infrastructure Program. BVCOG is a likely applicant to the program and stands ready to bring redundant, medical broadband to the health care and health education providers serving the rural, medically underserved citizens of the region. As shown by successful Rural Health Care Pilot Projects, continuing existing policies regarding the installation of excess capacity will ensure the health care network is sustainable, is not a continuing drain on scarce USF resources, and will benefit local providers seeking to bring affordable broadband access into their communities. The

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[50] *See, e.g., HIEM RHC NPRM Further Comments* at 10-12.

[51] *See RHC NPRM*, 25 FCC Rcd. at 9401, ¶ 74 ("In the event we adopt an incremental cost approach, should we make a bright line distinction so if ineligible users take more than a set percentage of the network's capacity, then they would be required to pay a larger share based on fully-distributed costs (rather than merely incremental cost)?").

[52] *See HIEM Further RHC NPRM Comments* at 11.

Commission should finally complete this vital, missing piece of the Commission's efforts to reform the overall federal universal service fund.

Respectfully submitted,

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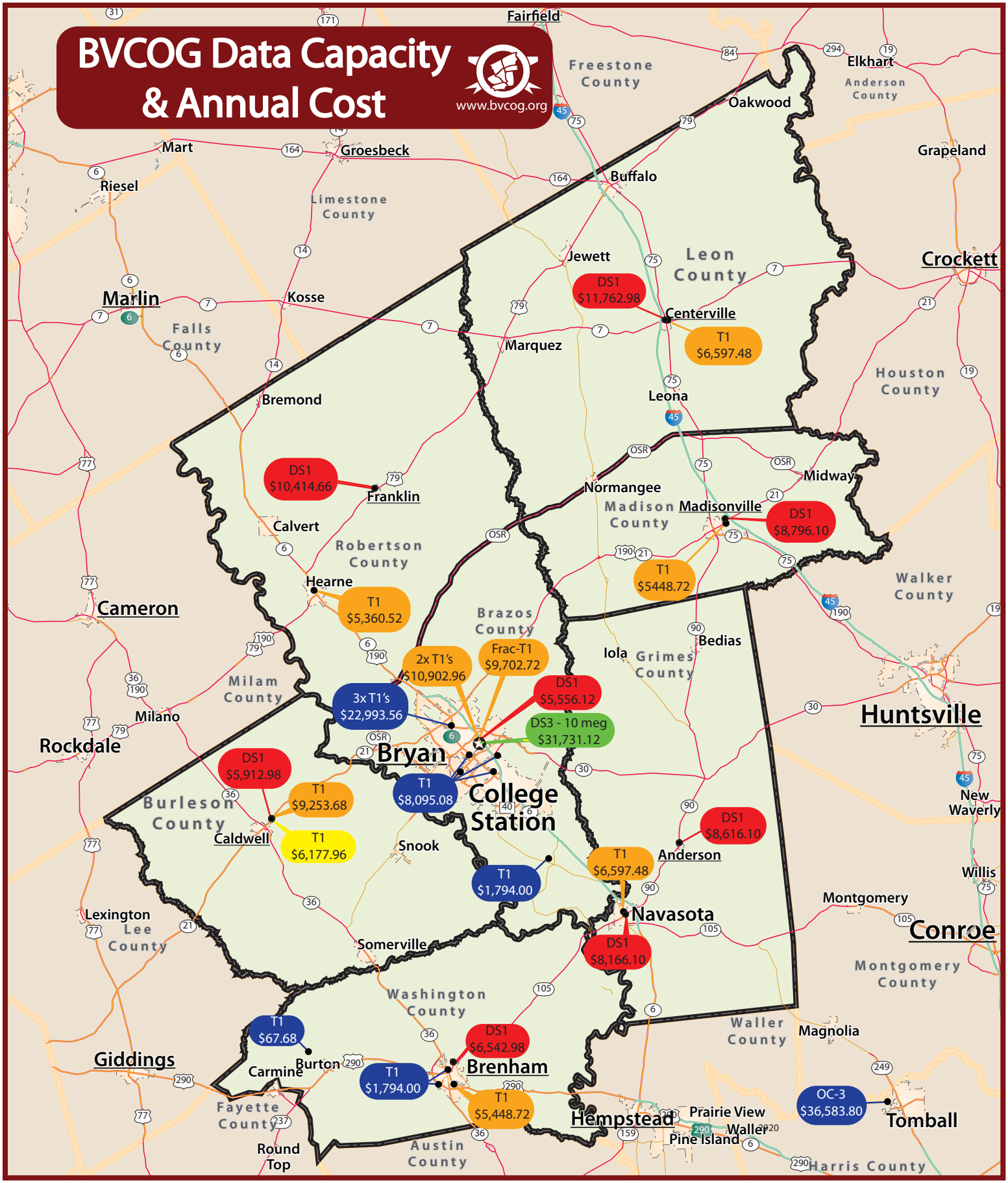
EXHIBIT 1

BVCOG Data Capacity & Annual Cost

BVCOG Data Capacity & Annual Cost

www.bvcog.org



U.S. Interstate	State Business	Secondary Two Lane Hwy	9-1-1 Network	BVCOG
Bus. Interstate	Limited Access Freeway	BVCOG County Bounds	Public Safety Network	
U.S. Highway	Limited Access Tollway	Other County Bounds	Workforce Network	
U.S. Business	Other Four Lane Hwy	City or CDP Bounds	HIV Network	
State Highway	Principle Two Lane Hwy	County Seat	Internet Service Connection	

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